



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/157,427	09/21/98	WALTON	W

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PM92/1123

EXAMINER

DOUGHERTY, J

ART UNIT

PAPER NUMBER

3672

DATE MAILED:

11/23/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/157,427

Applicant(s)

WALTON, WILLIAM B.

Examiner

Jennifer R. Dougherty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-18 is/are rejected.
- 7) ☒ Claim(s) 4, 7-10 and 18-20 is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 17) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other: _____.

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DETAILED ACTION

1. The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 3672.

Information Disclosure Statement

2. It is noted that one of the references filed with the application (an article from The Oil and Gas Journal) does not appear on the Information Disclosure Statement.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not state that the person making the oath or declaration has reviewed and understands the contents of the specification, including the claims, as amended by any amendment specifically referred to in the oath or declaration.

It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

It does not identify the city and state or foreign country of residence of each inventor.

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It does not identify the post office address of each inventor. A post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The post office address should include the ZIP Code designation.

Specification

4. The title of the invention is objected to as being too long; it should be shortened yet still remain descriptive (see 37 CFR 1.72). A possible new title is: Procedure to Mobilize Asphaltene-Based Crude with a Micelle Solvent.
5. The tables and graphs are objected to because they are not incorporated into the specification (they have no page numbers) and their margins are improper.

Claim Objections

6. The claims in this application do not commence on a separate sheet in accordance with 37 CFR 1.52(b). Appropriate correction is required in response to this action.
7. Claims 18-20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 18-20 do not further limit the process of cleaning a well, they simply recite advantages and results of the claimed process.
8. Claims 7-10 are not enabled by the specification as it currently reads. The attempt to incorporate subject matter into this application by reference to Patent Number 4,541,483 is

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improper because claimed subject matter must be explicitly recited in the disclosure of the application.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 2, 3, and 12-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2, 13, and 17 the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Further, claim 13 recites the limitation "second time" in line 3. There is insufficient antecedent basis for this limitation in the claim. Claim 13 makes no mention of a first air injection; it appears that claim 13 should be dependant on claim 2. Claim 12 is indefinite, it appears that the claim is incomplete or improperly worded. Claims 3 and 14-17 are rejected because they are dependent on either claim 2 or 13, which are rejected under 35 U.S.C. 112.

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Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 5, 7-9, 11, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton (482) in view of Al-Yazdi.

The procedure of Walton (482) includes all the limitations of claims 1, 5, 7-9, 11, 12, and 18 (injecting a micelle treating fluid to treat a subterranean formation to reduce well precipitate (see abstract); the micelle fluid containing: 2 percent potassium chloride water (column 5, line 67- column 6, line 11), in a volumetric ratio of 1:1 to 2:1 (column 6, lines 50-59) with a mutual solvent of alcohol, an aromatic hydrocarbon, and an alkyl or alkylaryl polyoxyalkylene phosphate ester surfactant (column 2, lines 46-51; column 6, line 66-column 7, line 3), which is present in the mutual solvent in amounts of 5-50 weight percent (column 6, lines 50-59) and shutting in the well after the addition of the treatment fluid (column 7, lines 34-40), whereby the productivity of the well is restored to a greater rate than it was before the accumulation of the asphaltene (see graphs)) except that the solvent is used to treat paraffin not asphaltene. Al-Yazdi discloses a solvent that can be used to dissolve both paraffin and asphaltene in wells. Al-Yazdi teaches that both paraffin and asphaltene, which can be deposited in wells together, are common problems in wells which require solvent treatment (column 1, line 19- column 2, line 50). Thus at the time of

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the invention it would have been obvious to one having ordinary skill in the art to have used the paraffin treatment composition of Walton (482) to treat asphaltene in the manner of Al-Yazdi in order to simplify the well treatment process by using one solvent to rid the well of two obstructing deposits.

13. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton (482) in view of Al-Yazdi as applied to claim 1 above, and further in view of Reisberg.

The methods of Walton (482) and Al-Yazdi include all the limitations of claims 2 and 3 as recited above except for the use of gas alone or with water and/or the treatment fluid as a drive mechanism to move the treatment fluid into the formation whereby the injection of gas and treatment fluid can be continuous. Reisberg discloses a gas drive mechanism to move treatment fluid into a formation and enhance oil recovery (column 1, lines 23-62) which avoids the use of polymers in the drive fluid (column 1, lines 6-20). Thus at the time of the invention it would have been obvious to one having ordinary skill in the art to have used the gas drive mechanisms taught by Reisberg with the well treatment methods of Walton (482) and Al-Yazdi in order avoid the use of polymers, which can react with the surfactant and the formation fluids and decrease the effectiveness of the oil recovery, in the drive system.

14. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton (482) in view of Al-Yazdi as applied to claims 1 and 5 above, and further in view of Dunleavy et al.

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The methods of Walton (482) and Al-Yazdi include all the limitations of claims 6 and 10 as recited above except for shutting the well in for 24 to 72 hours and the recitation of the specific composition of the non-aqueous dissolution solvent. Dunleavy et al. teach that shutting in the well permits an aqueous treating solution time to contact polymer accumulations in a well (column 6, lines 57-64), which would increase the effectiveness of the well treatment. Dunleavy et al. further teach the specific solvent composition recited in claim 10 as the preferable solvent composition for the dissolution of an alkyl or alkylaryl polyoxyalkylene phosphate ester surfactant (column 5, lines 1-16). Thus at the time of the invention it would have been obvious to one having ordinary skill in the art to have used the preferred composition of Dunleavy et al. to have dissolved the surfactant and to have also shut in the well in the manner of Dunleavy et al. while the well treatment method of Walton (482) and Al-Yazdi was carried out in order to increase the effectiveness the well treatment method.

Allowable Subject Matter

15. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Claims 13-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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17. Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Walton (609), Falls, Watkins et al., Walton (935), Maly et al., and Thompson show the state of the art with respect to removing polymer deposits from wells and using gas drives.


19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Dougherty whose telephone number is (703) 308-6365. The examiner can normally be reached on Monday-Thursday from 7:30 AM to 5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell, can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.


jrd

November 10, 1999


DAVID BAGNELL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600